

P. KLOTZ.

Fire-Place Stove.

No. 109,022.

Patented Nov. 8, 1870.

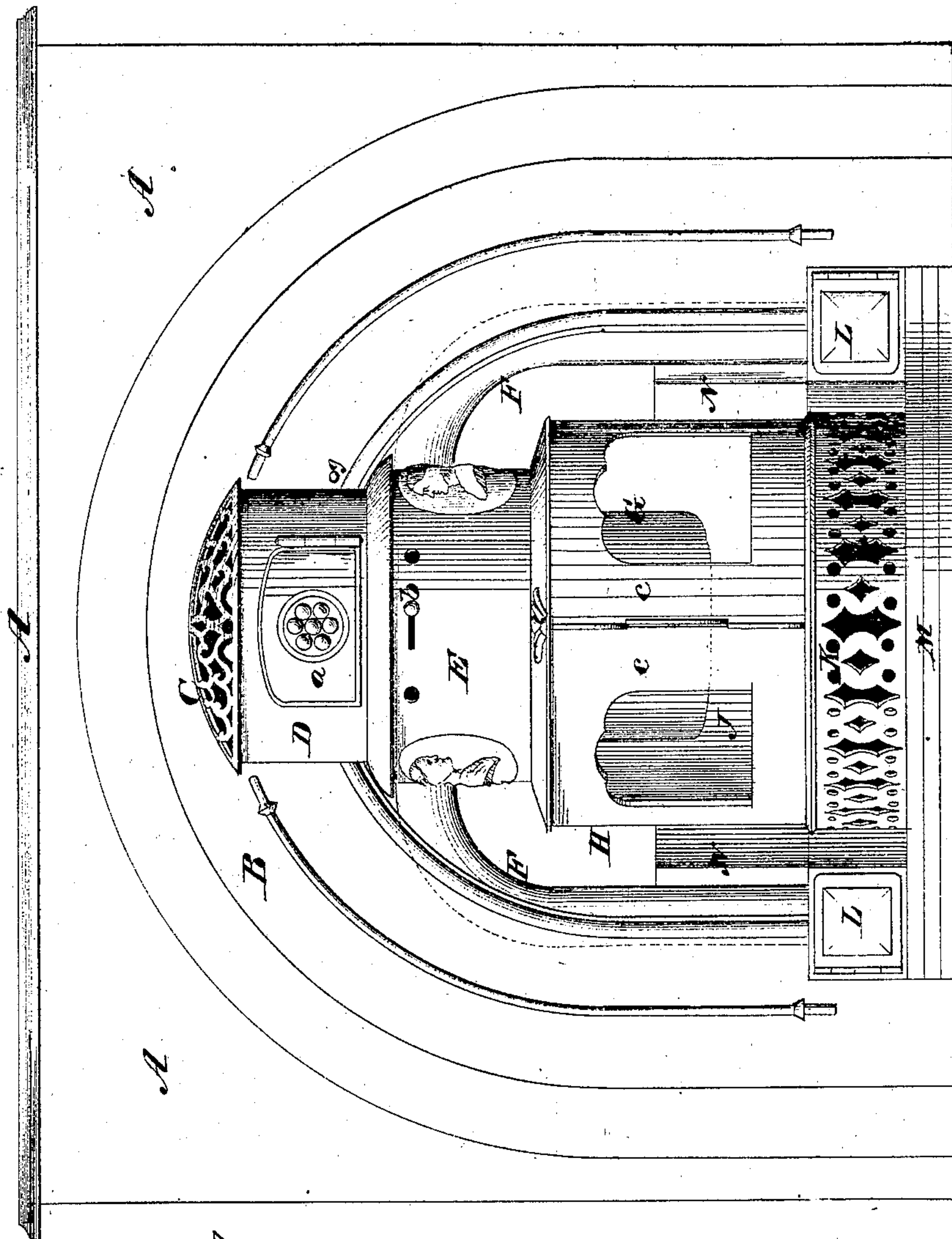


Fig. 7

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Fig. 3.

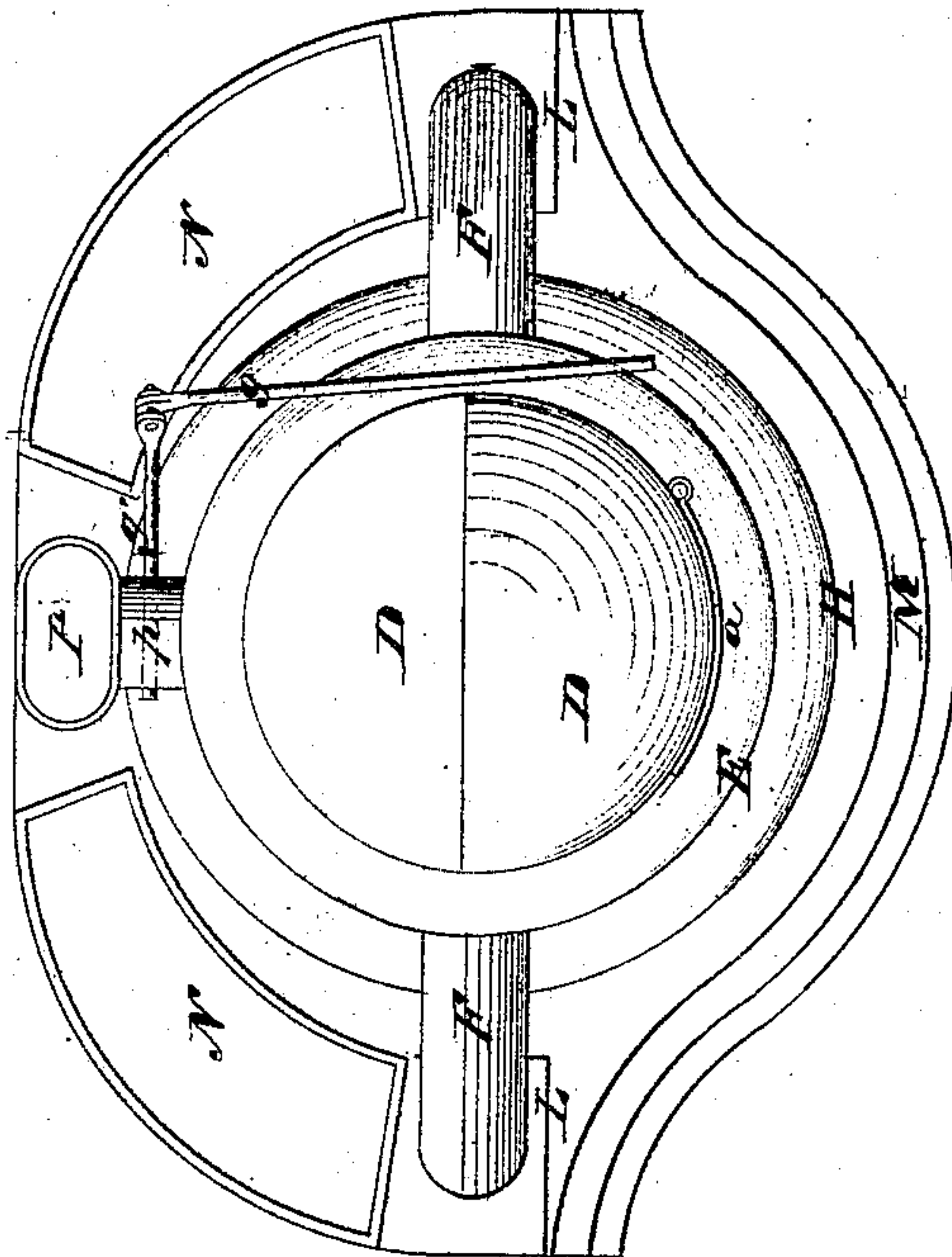
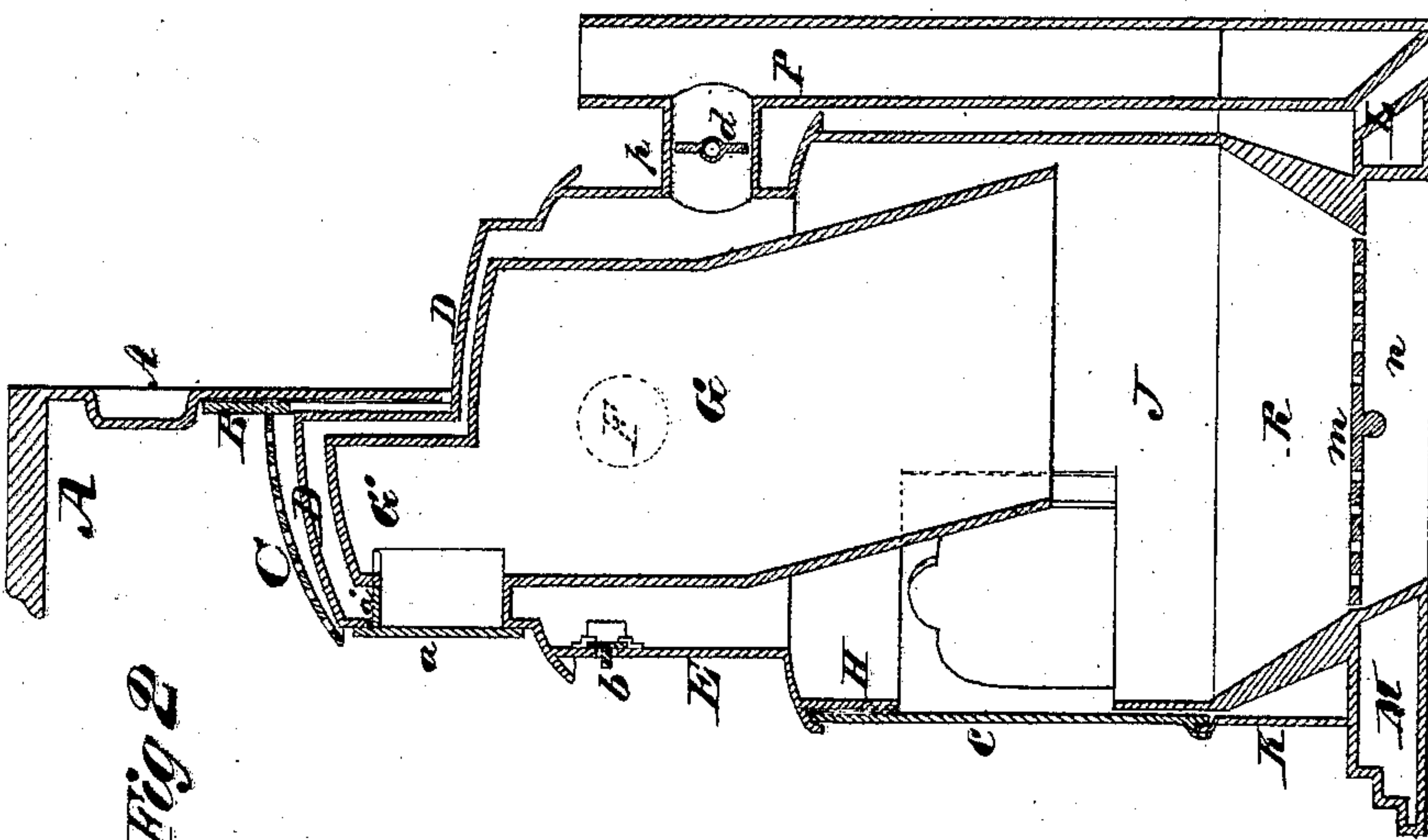


Fig. 2.



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PHILIP KLOTZ, OF BALTIMORE, MARYLAND.*

Letters Patent No. 109,022, dated November 8, 1870.

IMPROVEMENT IN FIRE-PLACE STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, PHILIP KLOTZ, of the city and county of Baltimore, in the State of Maryland, have invented certain Improvements in Fire-Place Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, plate 1, is a front view of my improved fire-place stove, arranged in a fire-place.

Figure 2, plate 2, is a section taken centrally and vertically through fig. 1 from front to rear.

Figure 3, plate 2, is a top view of the stove.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain novel improvements on fire-place stoves which are provided with fuel-supply reservoirs.

Prior to my present invention, stoves of this class were constructed with feed-openings, through which fuel was supplied to the reservoirs through the front vertical sides of the uppermost sections, which latter were no higher than the fire-places into which these stoves were partly received. The objection to the side openings is, that very little vertical space could be provided within the limit of an ordinary fire-place for containing coal, as the fuel-reservoirs were necessarily very short, and could not be filled with coal. An improvement was subsequently made, which in a measure removed the above-named objection, and allowed a large quantity of fuel to be conveniently introduced into stoves of the same vertical height as the old feeding-stoves. This improvement consisted in making the feed-passage directly through the top plate of the stove, and omitting the old side passage.

The nature of my invention and improvement consists in the addition to the top section of a fire-place stove, as hitherto constructed, of another section, which is extended above that portion of the stove inclosed in the fire-place, and provided with a fuel feed-opening, and also with an extension of the fuel-magazine, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawing—

A A A represent the mantel-piece and mantel-shelf, and

B represents the fire-board, which latter incloses in the fire-place all that portion of the stove which is not exposed beyond the front of the mantel.

C is an open-work ornamented cap, which covers the topmost section D of the stove, and which may be applied movably or permanently to the fire-board B, or to the said top section. This cap C serves as an

ornament to the stove, and does not prevent the free escape of any heat rising from the top of the section D.

The section D is semi-cylindrical; that is to say, it only occupies about half the horizontal area of the succeeding lower section E, which latter may extend nearly up to the top of the fire-place. The section D is constructed upon, and rises vertically from, the front exposed half or part of the section E, thus extending above the fire-place in front of the mantel.

Beneath the top section D is the full section E, and beneath this is the fire-chamber section H, which two sections are more or less contained within the fire-place.

Beneath the section H is the fire-pot R, which is hidden from view by the front open-work K, and which is mounted upon the hollow base section M.

From the upper part of the section E flues, F F, extend down and form communications with the hollow flue-box L; and from the back of this section E a short flue, *p*, forms a communication with the main exit-flue P, which rises vertically from the back part of the flue-box L, as shown in fig. 2.

A damper, *d*, which is opened from the front of the stove by means of rods, *g g'*, is intended to afford a direct draught, when open, from the interior of the stove to the exit-flue P.

The main portion G of the magazine extends from a point near the upper end of the section E downward to a proper level above the fire-pot R, and the lower portion may incline backward, as indicated in fig. 2, so as to expose a large amount of fire-surface at the front part of the fire-pot. If desirable, the magazine may be straight.

From the front portion of the top of the main body of the magazine rises a contracted extension, G', which corresponds in form to the form of the top section D, but which is somewhat smaller than this section. Thus, there is a space left between the two walls, which is in communication with the annular space between the body of the magazine and the wall of section E, as shown in fig. 2.

An opening, for the supply of fuel to the magazine, is made through the front portions of the section D and the magazine extension G', which opening is provided with a door, *a*, having a flange or cut-off, *a'*, applied to its inner side, so that when this door is shut it will cut off all communication between the upper end of the magazine and the space between the parts D and G'. When the door *a* is opened, there will be a communication between the interior of the magazine extension G' and the space surrounding it, and by opening damper *d* a draught will be created, which will prevent the escape of gas through said feed-opening into the room.

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The door *a* may be hinged so as to swing open and shut vertically instead of horizontally.

To the front of the intermediate section *E* a damper, *b*, may be applied, as shown in figs. 1 and 2.

The front part of the wall of section *H* is cut away, and provided with horizontally and circularly-sliding doors *c c*, having mica windows in them. These doors afford the advantage of an open or close fire, as may be desired.

Beneath the doors *c c* is a perforated ornamental screen, *K*, which hides from view the front of the fire-pot *R*, but does not prevent the radiation of heat into the room from this pot.

It will be seen, by reference to fig. 2, that the base of the stove is open below the grate *m*. This opening is intended to allow ashes and coals to fall through a passage into the cellar below, and thus obviate the inconvenience and objections attending the handling of the ashes as hitherto.

NN are water-evaporators, mounted on the flue-box behind the descending flue-columns *FF*.

It will be understood from the above description that I have improved fire-place stoves by the addition of a section or extension to the front part of the section *E*, which extension is so constructed as to rise above the fire-place in front of the mantel, and thus allow an extension of the magazine above the section *E*, without disfiguring the appearance of the stove. I thus greatly enlarge the magazine vertically, and add to its capacity for receiving fuel. I provide an effectual escape for gas into the main flue when the feed-door is opened. I render the introduction of fuel into the stove more convenient than it is with the "top-

feed" stoves, and I protect the topmost section of the stove, as well as the mantel and shelf, from the influence of injurious heat, as this top section or extension is further removed from the influence of the heat than the top sections which do not extend above the level of the fire-places.

While I prefer to apply my improvement to fire-place stoves constructed as herein described and shown, I do not confine myself to such construction, as the improvement is applicable to other forms of stoves and arrangements of parts.

Having described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The addition or section *D*, inclosing an extension *G'* of the fuel-magazine, and provided with a front feed-opening; said extensions being made to rise above the level of the fire-place in front of the mantel, substantially as described.

2. The flange or cut-off *a'*, applied to the front door of the feed-opening of the top section *D*, in combination with a space between the wall of this section and the wall of the magazine extension *G'*, whereby when said door is shut the interior of the magazine will not be influenced by the draught of the stove, but when said door is open the draught of the stove will prevent the escape of gas from the magazine into the room, substantially as described.

PHILIP KLOTZ.

Witnesses:

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